# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

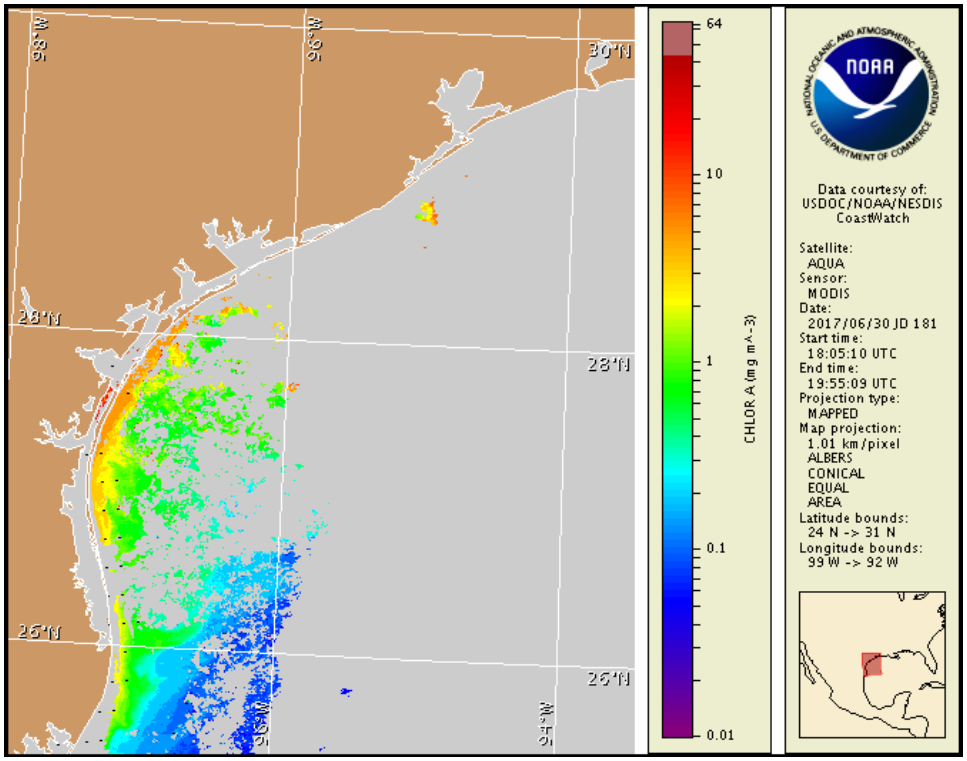
Monday, 03 July 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, June 26, 2017




Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from June 23 to 28: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the Gulf of Mexico HAB:

https://tidesandcurrents.noaa.gov/hab/gomx.html

## Conditions Report

*Karenia brevis* (commonly known as Texas red tide) ranges from not present to background concentrations along the coast of Texas. No respiratory irritation is expected alongshore Texas Monday, July 3 through Monday, July 10. For local information check the Texas Parks and Wildlife Department Red Tide page (http://tpwd.texas.gov/landwater/water/environconcerns/hab/redtide/).

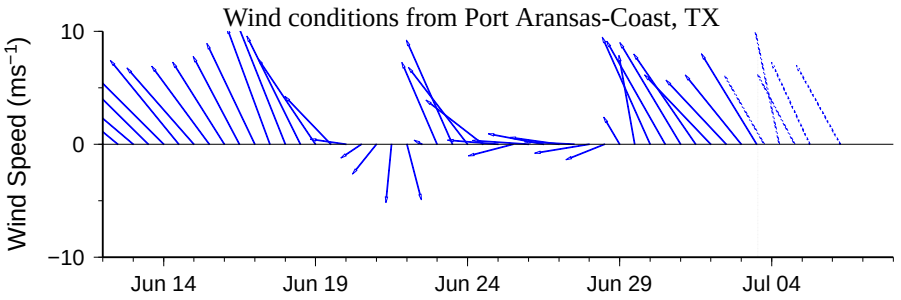
## Analysis

Due to technical difficulties, sampling from Texas A&M University's Imaging FlowCytobot (IFCB), located on the Port Aransas ship channel, is currently unavailable. Recent sampling on 6/22 indicated that *Karenia brevis* concentrations range between 'not present' and 'background' (TAMU). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua ensemble imagery (6/30; shown left) is obscured by clouds from Sabine Pass to Matagorda Island, preventing analysis of that region. Elevated chlorophyll (2 to 5$\mu$g/L) with the optical characteristics of *K. brevis* is visible alongshore from Matagorda Island to the Rio Grande. However, elevated chlorophyll is not indicative of the presence of *K. brevis* and is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a potential maximum transport of 40km north from the Port Aransas region from June 30 to July 6.

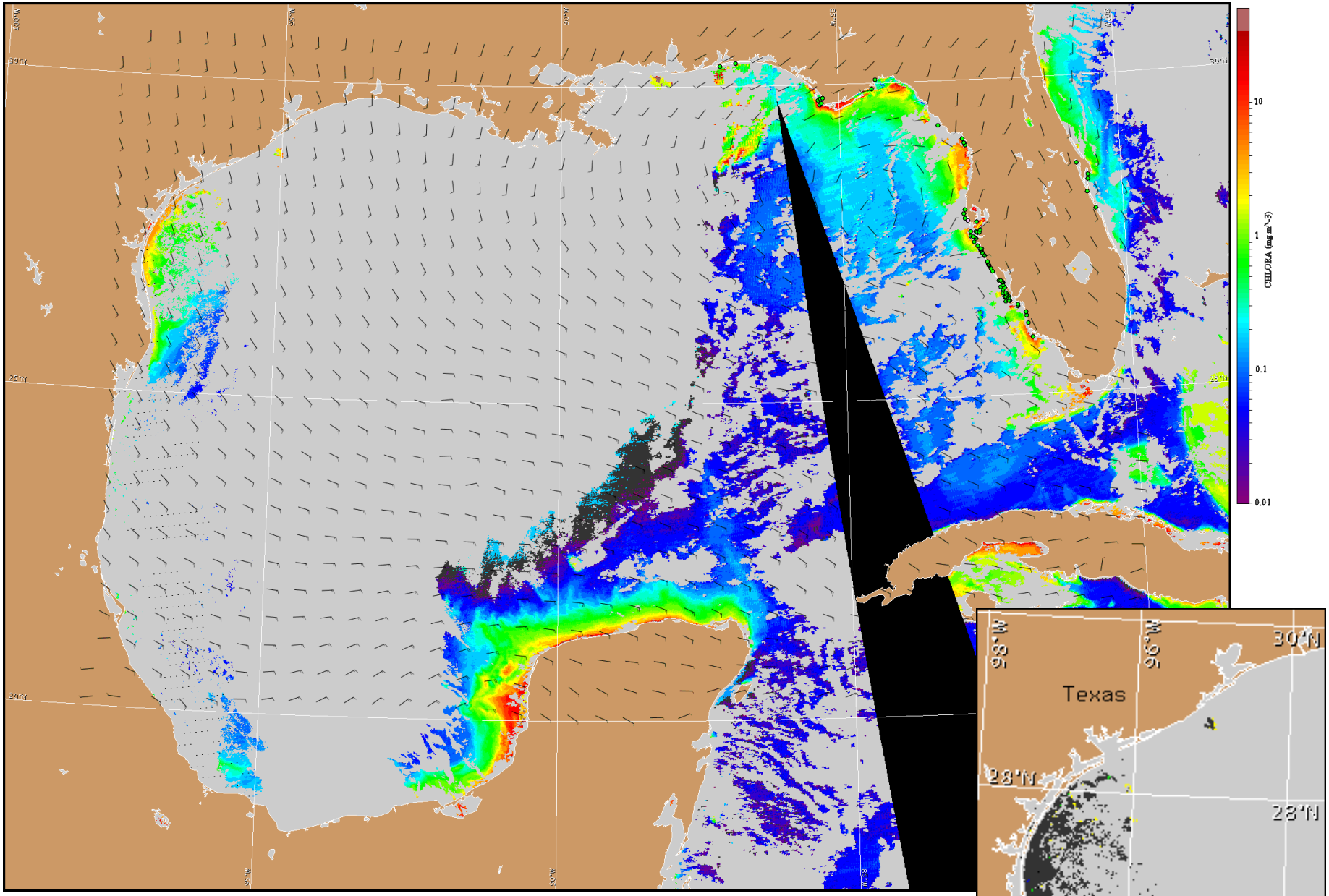
Davis, Keeney




Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

## Wind Analysis

**Port Aransas to Matagorda Ship Channel**: South to southeast winds (10-20kn, 5-10m/s) today through Friday.




Satellite chlorophyll image and forecast winds for July 4, 2017 06Z with points representing cell concentration sampling data from June 23 to 28: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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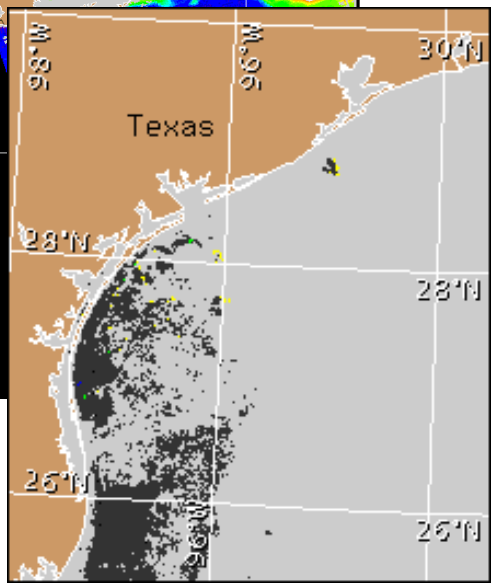


Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).